

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 16, 2011

Mr. Chris Firestone
Pennsylvania Department of Conservation & Natural Resources
Bureau of Forestry – Plant Program
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-1673

SUBJECT:

REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER EVALUATION FOR THE LIMERICK GENERATING STATION, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION REVIEW (PNDI NUMBER: 21136)

Dear Mr. Firestone:

The U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing an application submitted by Exelon Generation Company, LLC (Exelon), for the renewal of the operating license for Limerick Generating Station, Units 1 and 2 (Limerick). Limerick is located in Limerick Township of Montgomery County, PA, and is approximately 35 miles upriver of Philadelphia. The application for renewal was submitted in a letter dated June 22, 2011, pursuant to Title 10 of the Code of Federal Regulations (10 CFR) Part 54.

The NRC has established that, as part of the staff's review of any nuclear power plant license renewal application, a site-specific Supplemental Environmental Impact Statement (SEIS) to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," NUREG-1437, will be prepared under 10 CFR Part 51, the NRC's regulation that implements the National Environmental Policy Act of 1969, as amended. The SEIS includes an analysis of pertinent environmental issues, including endangered or threatened species and impacts to fish and wildlife. This letter is being submitted under the provisions of the Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act of 1934, as amended.

Limerick is a two-unit site with forced-circulation General Electric boiling-water reactors. The facilities consist of the reactor enclosures, turbine enclosures, cooling towers, electrical substations, independent spent fuel storage installation, Schuylkill River Pumphouse, and spray pond. Additional facilities are the cooling-tower blowdown discharge line and associated structures, which are submerged immediately downriver from the Schuylkill River Pumphouse.

The Limerick plant site contains a total of 645 acres, including 491 acres in Montgomery County and 154 acres in Chester County. The proposed action includes the use and continued maintenance of existing plant facilities and transmission lines. See Enclosures 1 – 5 for figures of the facilities and transmission lines. Exelon states that it has no plans for refurbishment or replacement activities to support renewal of the operating licenses.

As part of the SEIS preparation, the applicable transmission line corridors will be reviewed. The Limerick transmission system is comprised of the transmission lines and associated structures from the three main power transformers of Limerick Unit 1 to the Limerick 230-kV Substation, and the three main power transformers of Limerick Unit 2 to the Limerick 500-kV Substation; both substations are located on the plant site. The system also includes the substations,

transmission lines, and associated structures to connect Limerick to the regional electricity grid, including:

- two 230-kV lines, designated 220-60 and 220-61, connecting the Limerick 230-kV Substation to the Cromby Substation located at Exelon Generation's Cromby Generating Station;
- one 230-kV line, designated 220-62, connecting the Cromby Substation to the North Wales Substation and the regional electricity grid;
- one 230-kV line connecting the Cromby Substation to the Plymouth Meeting Substation and the regional electricity grid, consisting of:
 - One segment, designated 220-63, connecting the Cromby Substation to the Barbadoes Substation; and
 - One segment, designated 220-64, connecting the Barbadoes Substation to the Plymouth Meeting Substation; and
- one 500-kV line, designated 5031, connecting the Limerick 500-kV Substation to the Whitpain Substation and the regional electricity grid.

Additionally, the transmission system includes the rights-of-way (ROWs) for the transmission lines. These ROWs were either pre-existing at the time Limerick was built (i.e., the lines are being shared with other linear features that were already in place) or were added in conjunction with construction. The system is basically the same as originally constructed. See Enclosure 5 for an overview of the transmission line ROW routes, which traverse Montgomery County and Chester County.

The four offsite 230-kV lines exclusively serve Limerick, Unit 1, and the one offsite 500-kV line exclusively serves Limerick, Unit 2. Exelon states in the LRA, "[e]ven though these lines were constructed solely to serve the Limerick units, it is anticipated that some or all of these lines would continue to be used for transmitting electricity produced by other generating sources even if the Limerick operating licenses are not renewed."

PECO, the energy delivery subsidiary of Exelon Corporation serving retail customers in southeastern Pennsylvania, owns in fee the offsite substations and a portion of the transmission line ROWs associated with the transmission system. A significant portion of the transmission system is located over or under highways, streets, other public places or property owned by others, for which PECO has permits, grants, easements, or licenses.

To support the SEIS preparation process and to ensure compliance with Section 7 of the Endangered Species Act, the NRC requests a list of species and information on protected, proposed, and candidate species and critical habitat that may be in the vicinity of Limerick and its associated transmission line ROWs. The applicant, Exelon, corresponded with your office by letter dated January 19, 2011. You replied by letter dated March 9, 2011 (PNDI Number: 21136), with a list of plant and terrestrial invertebrates species, and natural communities and geologic features potentially occurring in the vicinity of the plant and its associated transmission line ROWs. To avoid any duplication of effort, you may confirm that the list previously provided to Exelon from your office is still current rather than compiling a new list. If any information is

not current, please provide any applicable updates. Both the January 2011 letter from Exelon and the March 2011 letter from The Pennsylvania Department of Conservation and Natural Resources are enclosed for your reference. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act.

The NRC staff plans to hold two public license renewal overview and environmental scoping meetings on September 22, 2011, in the area of Limerick. The first session will be held in the afternoon and an identical session will be held later that evening. Both sessions will be held at the Sunnybrook Ballroom, 50 North Sunnybrook Road, Pottstown, PA 19464. The afternoon session will be from 2:00 p.m. until 4:00 p.m. and the evening session will be from 7:00 p.m. until 9:00 p.m. In addition, the NRC plans to hold a one hour Open House prior to each meeting to answer public questions. You and your staff are invited to attend the public meetings and Open House. Your office will receive a copy of the draft SEIS along with a request for comments. The anticipated publication date for the draft SEIS is August 2012.

The Limerick license renewal application is available on the internet at http://www.nrc.gov/reactors/operating/licensing/renewal/applications/limerick.html. If you have any questions or require additional information, please contact Mrs. Lisa Regner, License Renewal Project Manager, by phone at 301-415-1906 or by e-mail at Lisa.Regner@nrc.gov.

Sincerely.

David J. Wrona, Chief

Projects Branch 2

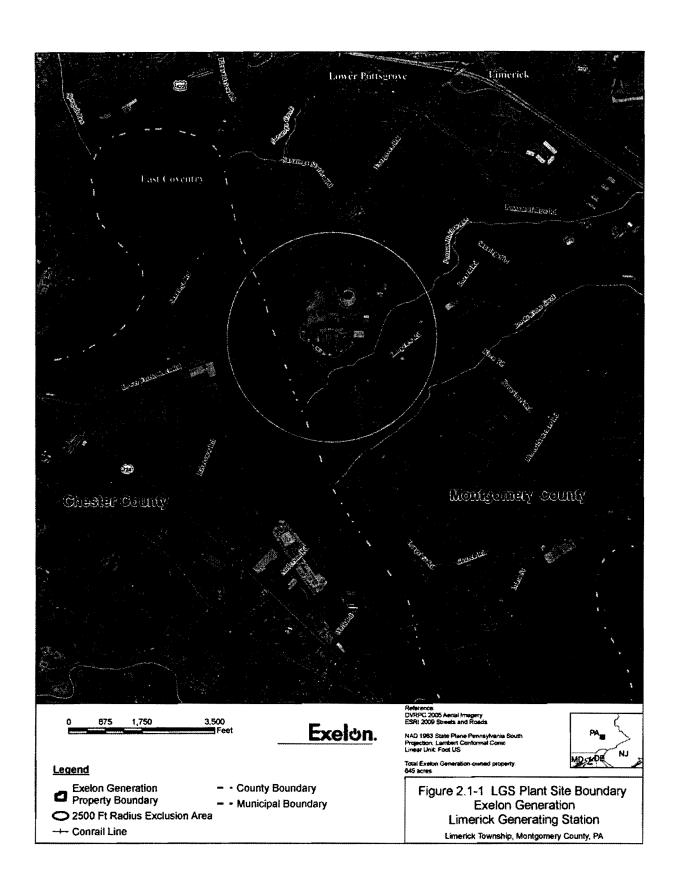
Division of License Renewal

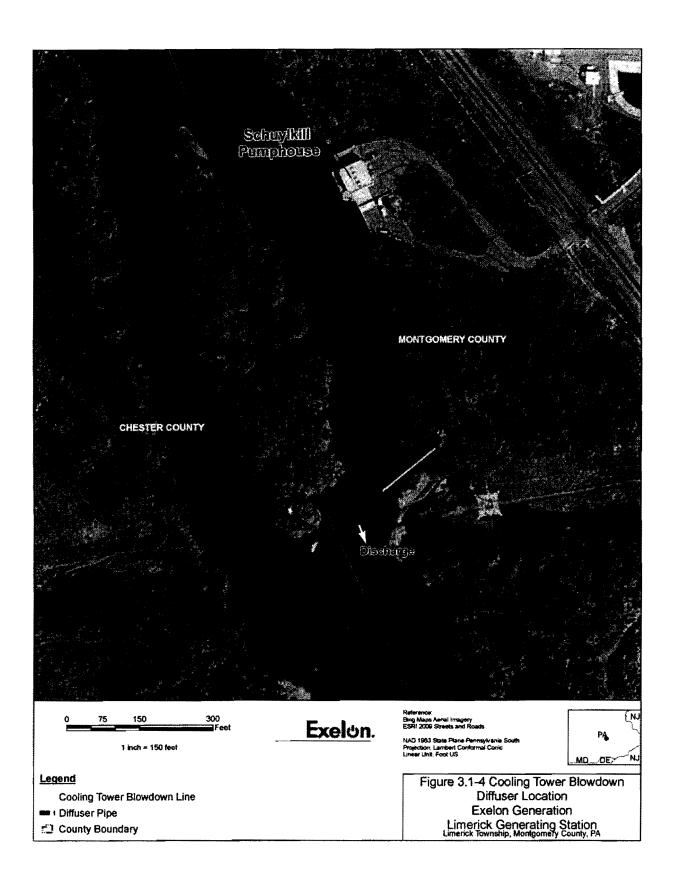
Office of Nuclear Reactor Regulation

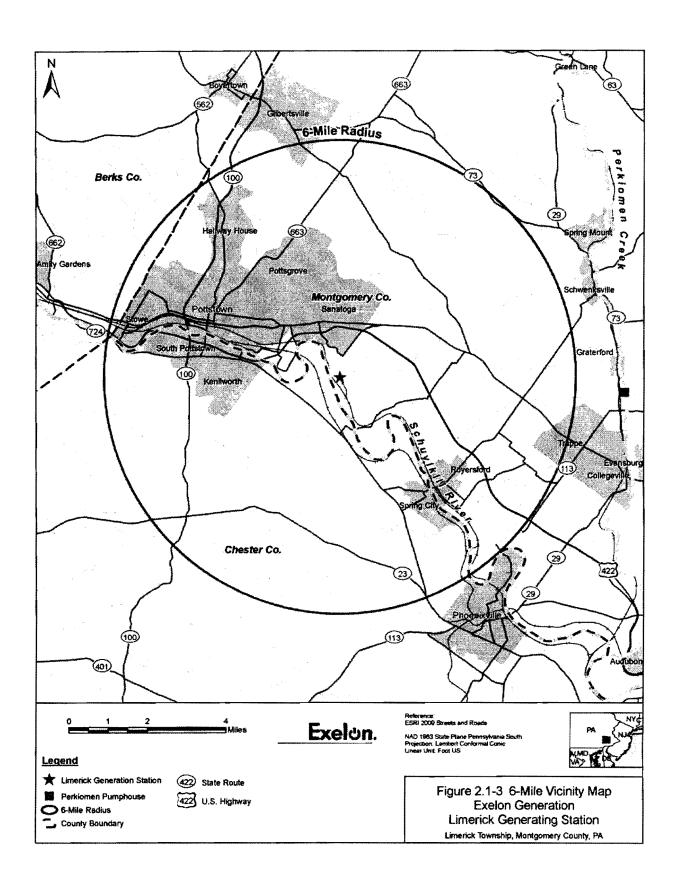
Docket Nos. 50-352 and 50-353

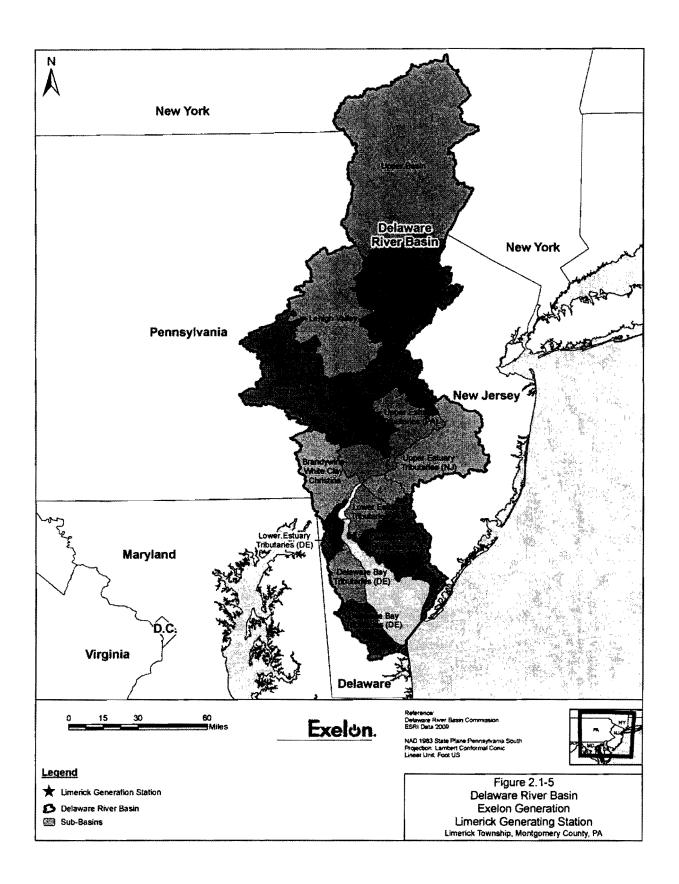
Enclosures: As stated

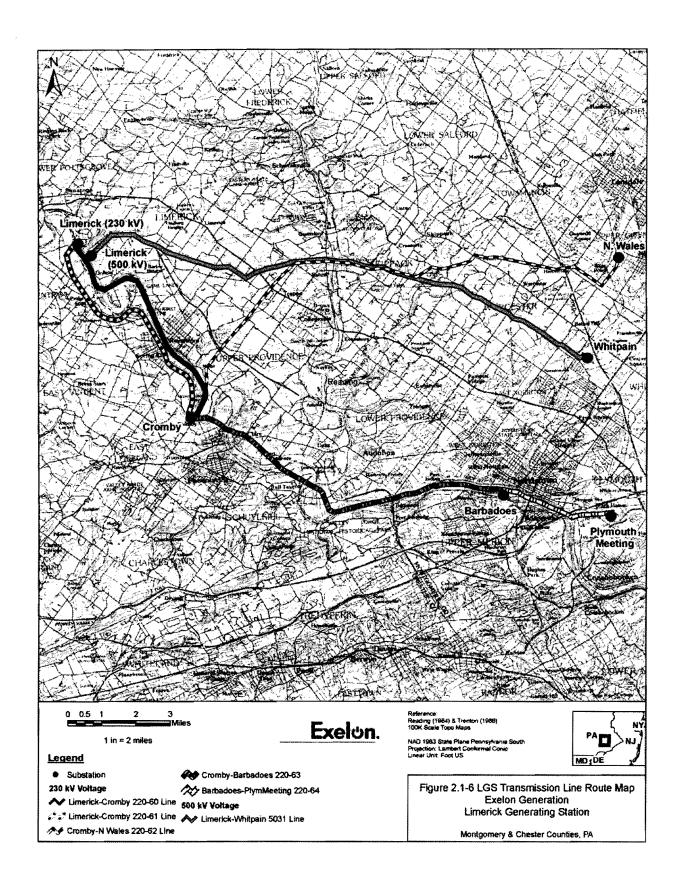
cc w/encls: Listserv













Michael P. Gallagher, PE

Vice President License Renewal Projects Telephone 610.765 5958 www.exeloncorp.com michaelp.gallagher@exeloncorp.com

Nuclear

Exelon Nuclear 200 Exelon Way KSA/2-F Kennett Square, PA 19348

January 19, 2011

Ms. Chris Firestone
Pennsylvania Department of Conservation & Natural Resources
Bureau of Forestry - Plant Program
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-1673

Re: Renewal of Operating Licenses for Limerick Generating Station, Units 1 and 2

Request for Information on Listed Threatened and Endangered Species

Dear Ms. Firestone:

In mid-2011, Exelon Generation Company, LLC (Exelon Generation; a subsidiary of Exelon Corporation) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for Limerick Generating Station, Units 1 and 2 (LGS). The existing license for Unit 1 will expire on October 26, 2024 and the existing license for Unit 2 will expire on June 22, 2029. The renewal term for each unit would be an additional twenty years beyond the existing license expiration date.

The NRC requires that license renewal applications include environmental reports assessing potential environmental impacts from license renewal activities. One such impact would be effects of license renewal activities on threatened and endangered species that are listed or proposed for listing in accordance with the Endangered Species Act (ESA) (16 USC 1531, et seq.) (10 CFR 51.53(c)(3)(ii)(E)). Accordingly, we are contacting you to obtain input for use in addressing these effects in the LGS license renewal environmental report. Later, NRC may also request an informal consultation with your office consistent with Section 7 of the ESA (16 USC 1536(a)).

Project Features

LGS existing features that are relevant to the effects of license renewal on threatened and endangered species include the following:

- The LGS plant site, which hosts the two generating units, is located on Exelon Generation-owned properties that are mostly situated in Limerick Township, Montgomery County, but some of which are in the adjacent Lower Pottsgrove Township, Montgomery County or directly across the Schuylkill River in East Coventry Township, Chester County.
- 2. The LGS makeup water supply system, which conveys water from approved sources to LGS for use in its circulating water system, is composed of the following components:
 - The Perkiomen Pumphouse, located in Graterford Township, Montgomery County, and an associated underground 7.6-mile long Perkiomen Pumphouse-to-LGS pipeline; both are located along an easement held by Exelon Generation within an electrical transmission line right-of-way (ROW) controlled by PECO, a subsidiary of Exelon Corporation;
 - The Bradshaw Reservoir and Bradshaw Pumphouse, which are both situated in Plumstead Township, Bucks County, on Exelon Generation-owned properties totaling 42 acres;
 - The Bedminster Water Processing Facility, which is situated in Bedminster Township, Bucks County, on a 3-acre Exelon Generation-owned property; and
 - An underground water transmission main, which is routed within a natural gas
 pipeline ROW along an easement held by Exelon Generation that runs from the
 Bradshaw Pumphouse to the East Branch Perkiomen Creek by way of the
 Bedminster Facility.

The buried Perkiomen Pumphouse-to-LGS water pipeline and the underground water transmission main are located below ground within ROWs that exist for other purposes, and their operation requires no independent vegetation management or ground disturbing activities along these ROWs. Hence, these underground components of the makeup water supply system are assumed to have no effects on threatened and endangered plant species.

- 3. The LGS transmission system is composed of the following components:
 - Two electrical transmission lines constructed to connect the LGS main power transformers with two onsite electrical substations (these components are located on the LGS plant site); and
 - Four 230-kiloVolt (kV) and one 500-kV electrical transmission lines, with associated structures and offsite electrical substations, constructed to connect the onsite electrical substations to the regional electricity grid.

All offsite substations and transmission lines are operated by PECO and are located in ROWs situated in Montgomery and Chester Counties either on PECO-owned properties or on properties for which PECO holds permits, grants, easements, or licenses. Onsite transmission lines traverse only land that was disturbed during initial station construction.

Figures 1 through 9 showing the locations of the existing LGS project features are provided in Attachment 3.

Activities During the License Renewal Terms

LGS license renewal will involve no new construction, refurbishment, ground disturbing activities, changes to operations, or changes to existing land-use conditions. Operation and maintenance activities during the terms of the renewed LGS licenses are only expected to occur in previously disturbed areas or existing ROWs. Hence, no new adverse impacts to threatened and endangered plant species are anticipated from license renewal.

Identification of Threatened and Endangered Species Resources

Using the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool, a web-based application sponsored by the Pennsylvania Natural Heritage Program (PNHP), Exelon Generation has reviewed the potential for the LGS plant site area and the properties associated with the LGS makeup water supply system to adversely affect known occurrences of species or natural communities of concern. Receipts for PNDI search #s 20100421240174 (LGS plant site), 20100421240163 (Perkiomen Pumphouse area), 20100406237563 (Bradshaw Reservoir and Pumphouse area), and 20100407237630 (Bedminster Water Processing Facility area) are attached (Attachment 1). One "Special Concern Species" was identified for the LGS plant site: tooth-cup (Rotala ramosior). The responses for the other project sites stated that no impact is anticipated to threatened and endangered species and/or special concern species or resources.

Given the sizable acreage and distances associated with the LGS transmission line corridors, no PNDI searches were conducted for this project component. For review by your office in identifying species of concern, we instead offer the figures in Attachment 3 showing the routes and widths of the corridors.

A review of the PNHP web site for state-listed endangered and threatened species indicates that numerous state-listed plant species could occur in Montgomery, Chester, and Bucks Counties. The enclosed Attachment 2 contains a list of these species. One perennial orchid species, the small whorled pogonia (*Isotria medeoloides*), state-listed as endangered, with Chester County as its recorded location, also is federally-listed as threatened. Although the American Holly (*Ilex opaca*), which is state-listed as threatened, was observed on the LGS plant site in 1978, Exelon Generation is not aware of the recent presence of any state-listed plant species on or near the properties associated with LGS and its associated transmission lines. Also, Exelon Generation and PECO adhere to regulatory requirements regarding sensitive areas that could contain state-listed threatened and endangered plant species and work closely with your department to protect these resources.

Because license renewal involves no new construction, refurbishment, ground disturbing activities, changes to operation, or changes to existing land use conditions, Exelon Generation does not expect LGS license renewal to adversely affect threatened and endangered plant species located near the LGS plant site, makeup water supply system, or transmission system ROWs. Nevertheless, we are requesting your help to identify issues we may have overlooked that need to be addressed in the LGS license renewal environmental report. We are also interested in learning of any information your staff believes could help expedite the NRC's review of the LGS license renewal application. Hence, in closing, we would appreciate receiving a response from you detailing such issues and information for the LGS plant site, makeup water supply system and transmission system. We would also welcome your confirmation of our conclusion that LGS license renewal would not adversely affect threatened and endangered plant species.

Because we plan to incorporate a copy of your response, as well as this letter, into the LGS license renewal environmental report that will be submitted to the NRC as part of the LGS license renewal application, your response will be most helpful if we receive it by March 10, 2011.

Please call Nancy Ranek (610-765-5369), our License Renewal Environmental Lead, if there are questions or you require additional information.

Mutael C. falley

Michael P. Gallagher

Enclosures:

Attachment 1: Receipts for PNDI Search #s 20100421240174, 20100421240163,

20100406237563, and 20100407237630

Attachment 2: Threatened and Endangered Plant Species that could occur in

Montgomery, Chester, and Bucks Counties

Attachment 3: Figures Depicting LGS Project Features (Figures 1 through 9)

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 1 of 19

ATTACHMENT 1

Receipts for PNDI Searchs

Receipt for PNDI Search # 20100421240174, Limerick GS	<u> 2</u>
Receipt for PNDI Search # 20100421240163, Perkiomen Pumphouse	7
Receipt for PNDI Search # 20100406237563, Bradshaw pump	11
Receipt for PNDI Search # 20100407237630, Bedminster WPF	16

Project Search ID: 20100421240174

1. PROJECT INFORMATION

Project Name: Limerick G5

Date of review: 4/21/2010 4:33:48 PM

Project Category: Energy Storage, Production, and Transfer, Energy Production (generation).Nuclear Power Plant -- maintenance, modification, or expansion

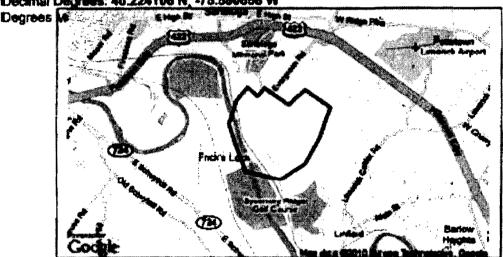
Project Area: 483.8 acres

County: Chester, Montgomery Township/Municipality: East Coventry, Limerick, Lower

Pottsgrove

Quadrangie Name: PHOENIXVILLE ~ ZIP Code: 19465.19464

Decimal Decrees: 40,224106 N, -75,580658 W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Penneytvania Natural Oversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate against comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Project Search ID: 20100421240174

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delawere, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

RESPONSE TO QUESTION(8) ASKED

Q1: "Will the entire project (including any discharge) occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, railroad bed, maintained (periodically mown) lawn, crop agriculture field or maintained orchard?"

Your answer is: 3. Unknown

Q2: Accurately describe what is known about wetland presence in the project area or on the land parcel. "Project" includes all features of the project (including buildings, roads, utility tines, outfall and intake structures, wells, stormwater retention/detention basins, parting lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.), include all areas that will be permanently or temporarily affected — either directly or indirectly — by any type of disturbance (e.g., tend clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: 2. The project area (or land percel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

Q3: Aquatic habitat (stream, river, lake, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats.

Your answer is: 1, Yes.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and enclangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are valid for one year (from the date of the review), and are based on the project Information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desidop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

Project Search ID: 20100421240174

DCNR Species:

Scientific Name: Rotala ramosior

Common Name: Tooth cup

Current Status: Special Concern Species*

Proposed Status: Special Concern Species"

project information to this agency for review (see WHAT TO SEND). RESPONSE: Further review of this project is necessary to reactve the potential impacts(s). Please send

PA Fish and Boat Commission

PFBC Species:

Scientific Name: Sensitive Species*

Common Name:

Current Status: Threatened

Proposed Status: Special Concern Species*

Scientific Name: Stygobromus pizzinii Common Name: Pizzini's Cave Amphipod

Current Status: Special Concern Species*

Proposed Status: Special Concern Species*

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send project information to this agency for review (see WHAT TO SEND).

U.S. Fish and Wildlife Service

RESPONSE: No impacts to <u>tederally</u> listed or proposed species are articipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 684, as emended; 16 U.S.C. 1531 of acq. is required. Decause no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, send the following information to the agency(s) seeking this information (see AGENCY CONTACT INFORMATION).

^{*} Special Concern Specias or Resource - Pfant or animal species classified as rare, tentatively undetermined or cancilidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictinal agency as collectible, having economic value, or being succeptible to decline as a result of visitation.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 5 of 19

PNDI Project Environmental Review Receipt

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Project Search ID: 20100421240174

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SIGNED copy of this Project Environmental Review Receipt	
Project nerrative with a description of the overall project, the work to be performed, current physical	
haracteristics of the alte and acreage to be impacted.	
Project location information (name of USGS Quadrangle, Township/Municipality, and County)	
USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map	
The inclusion of the following information may expedite the review process.	
A <u>heald</u> site plan(particularly showing the relationship of the project to the physical features <u>such as</u>	
vetlands, streams, ponds, rock outcrops, etc.)	
Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each	
hate was taken and the date of the photos)	
information about the presence and location of wettends in the project area, and how this was determine	ed:
a.g., by a qualified wellands biologist), if wellands are present in the project area, provide project plans show	ing
ne location of all project features, as well as wetlands and streams	
The DEP permitts) mentions for this project	

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at http://www.neture/beritson.stats.pa.us.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 6 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100421240174

5. ADDITIONAL INFORMATION

The PNOt environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys of further information reveal that a tratable and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.ps.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and U.S. Fish and Wildlife Service **Endangered Species Section** Natural Resources 315 South Allen Street, Suite 322, State College, PA. Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552, Harrisburg, PA, 16801-4851 NO Faxes Piesse. 17105-8552

PA Fish and Boat Commission

Fax:(717) 772-0271

Division of Environmental Services NO Faxes Please

PA Game Commission

Sureau of Wildlife Habitat Management 450 Robinson Lane, Beliefonte, PA. 16823-7437 Division of Environmental Planning and Habitat Protection 2001 Elmerton Avenue, Harrisburg, PA. 17110-9797 Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name:	Chenil	Macks	Ecolo	nist	
Company/8	usiness Name	IIRS Co	200012	Hon	
Address:	<u>355 C</u>	Damesco	_, DC	Site 30	
City, State,	Zip: <u>F+.</u>	washingto	n PA	19934	and the second second second
Phone: 21	<u>5) 367-</u>	25 980	fax:(2)5	367-10	00
Email:	bear a	artia u	150000	Com	
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8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were saked during this online review change, I alree to re-do the online environmental review.

Project Search ID: 20100421240163

1. PROJECT INFORMATION

Project Name: Perklomen Pumphouse Date of review: 4/21/2010 4:16:12 PM

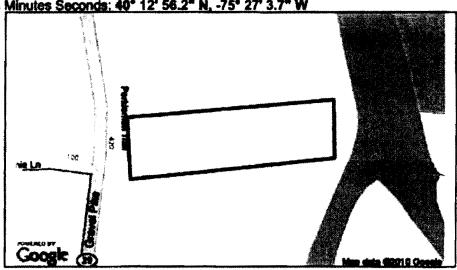
Project Category: Energy Storage, Production, and Transfer, Energy Production (generation), Nuclear Power Plant - maintenance, modification, or expansion

Project Area: 3.5 acres

County: Montgomery Township/Municipality: Perkiomen Quadrangle Name: COLLEGEVILLE ~ ZIP Code: 19426

Decimal Degrees: 40.215611 N, -75.451022 W

Degrees Minutes Seconds: 40° 12' 56.2" N, -75° 27' 3.7" W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area, Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding (mpacts to other ecological resources, such as wetlands.

Project Search ID: 20100421240163

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delawere, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylldll and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are valid for one year (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to <u>federally</u> listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 9 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100421240163

should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at http://www.naturalheritage.state.pa.us.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 10 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100421240163

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threetened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552, Harrisburg, PA. 17105-8552

Fax:(717) 772-0271

U.S. Fish and Wildlife Service

Endangered Species Section 315 South Allen Street, Suite 322, State College, PA. 16801-4851 NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services 450 Robinson Lane, Bellefonte, PA. 16823-7437 NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management Division of Environmental Planning and Habitat Protection 2001 Elmerton Avenue, Harrisburg, PA. 17110-9797 Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Charl Marks, Ecologist	
Company/Business Name: LIRS Cocoora tion	_
Address: SSS COMMOTCO DC Suita 300	_
City, State, Zlp: Ft. Washington 199 19034	_
Phone: (2/5) 367-2598 0 Fax: (2/5) 367-1000	
mail: Charl-marks@uBCoco.com	

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review thange, lagree for do the online environmental review.

applicant/project proponent signature date

Project Search ID: 20100406237563

1. PROJECT INFORMATION

Project Name: Bradshaw_pump
Date of review: 4/6/2010 3:53:37 PM

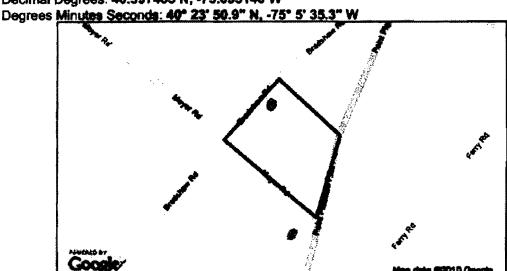
Project Category: Energy Storage, Production, and Transfer, Energy Production (generation), Nuclear Power Plant -- maintenance, modification, or expansion

Project Area: 36.5 acres

County: Bucks Township/Municipality: Plumstead

Quadrangle Name: LUMBERVILLE ~ ZIP Code: 18947,18901

Decimal Degrees: 40.397483 N, -75.093140 W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Project Search ID: 20100406237563

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

RESPONSE TO QUESTION(S) ASKED

Qf: Accurately describe what is known about wetland presence in the project area or on the land parcel. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected — either directly or indirectly — by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: 2. The project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

Q2: Aquatic habitat (stream, river, take, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats. Your answer is: 3. Unknown

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are valid for one year (from the date of the review), and are based on the project Information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 13 of 19

Project Search ID: 20100406237563

PNDI Project Environmental Review Receipt

PFBC Species:

Scientific Name: Sensitive Species**

Common Name:

Current Status: Threatened

Proposed Status: Special Concern Species*

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send project information to this agency for review (see WHAT TO SEND).

U.S. Fish and Wildlife Service

RESPONSE: No impacts to <u>federally</u> listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

- * Special Concern Species or Resource Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.
- ** Sensitive Species Species identified by the jurisdictinal agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, send the following information to the agency(s) seeking this information (see AGENCY CONTACT INFORMATION).

Check-list of Minimum Materials to be submitted:

SIGNED copy of this Project Environmental Review Receipt
Project narrative with a description of the overall project, the work to be performed, current physical
characteristics of the site and acreage to be impacted.
Project location Information (name of USGS Quadrangle, Township/Municipality, and County)
USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map
The inclusion of the following information may expedite the review process.
A basic site plan(particularly showing the relationship of the project to the physical features such as
wetlands, streams, ponds, rock outcrops, etc.)
Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each
photo was taken and the date of the photos)
information about the presence and location of wetlands in the project area, and how this was determined
(e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing
the location of all project features, as well as wetlands and streams
The DEP permit(s) required for this project

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 14 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100406237563

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at http://www.naturalheritage.state.pa.us.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 15 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100406237563

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552, Harrisburg, PA. 17105-8552

Fax:(717) 772-0271

U.S. Fish and Wildlife Service

Endangered Species Section 315 South Allen Street, Suite 322, State College, PA. 16801-4851 NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services 450 Robinson Lane, Bellefonte, PA. 16823-7437 NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management Division of Environmental Planning and Habitat Protection 2001 Elmerton Avenue, Harrisburg, PA. 17110-9797 Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name:	Chen	Mark	s. Eco	logist	
Company/I	Business Narf	e: URS	COLDO	Cation	
Address:	2335	Commer	ce Dr	Suite 30	0
City, State,	Zip: <u>F+</u>	Washing	aton PA	19034	
Phone:(21	5)367-	2598 0	Fax:(215) 367-	1000
Email:	Chew L. D	MIKS Q	UKSCOO	a-com	
	I		7		

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change. I sure to re-do the online environmental review.

applicant/project proponent signature date

Project Search ID: 20100407237630

1. PROJECT INFORMATION

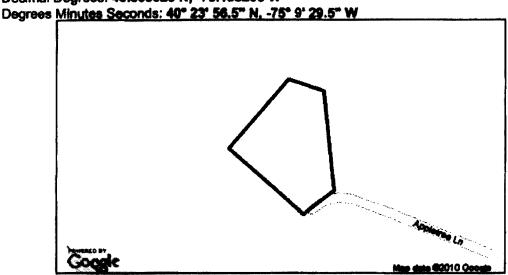
Project Name: Bedminster_WPF
Date of review: 4/7/2010 10:02:31 AM

Project Category: Energy Storage, Production, and Transfer, Energy Production (generation), Nuclear Power Plant — maintenance, modification, or expansion

Project Area: 2.4 acres

County: Bucks Township/Municipality: Bedminster Quadrangle Name: BEDMINSTER ~ ZIP Code: 18947

Decimal Degrees: 40.399023 N, -75.158205 W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 17 of 19

PNDI Project Environmental Review Receipt

Project Search ID: 20100407237630

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are valid for one year (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to <u>federally</u> listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

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Ms. Chris Firestone Attachment 1 January 19, 2011 Page 18 of 19

PNDI Project Environmental Review Receipt

completed PNDI form and a USGS 7.5 minute

Project Search ID: 20100407237630

should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at http://www.naturatherttage.state.pa.us.

Ms. Chris Firestone Attachment 1 January 19, 2011 Page 19 of 19

Project Search ID: 20100407237630

PNDI Project Environmental Review Receipt

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

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Fax:(717) 772-0271

U.S. Fish and Wildlife Service

Endangered Species Section 315 South Allen Street, Suite 322, State College, PA. 16801-4851 NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services 450 Robinson Lane, Bellefonte, PA. 16823-7437 NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management Division of Environmental Planning and Habitat Protection 2001 Elmerton Avenue, Harrisburg, PA. 17110-9797 Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name:	hend	Marks	Foologist	
Company/Busin	ess Name	URS Col	cora non	
Address: 3	35 C	MIMO rea	Dr. Suite	
City, State, Zip:	Ft. U	ashinebr	PA 19	734
Phone:(2/5)	307-	25910	Fax:(2/5)	367-1000
Email:	hay!	martsa	WSCOLD.	com

B. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, Jegree to re-do the online environmental review.

applicant/project proponent signature

Ms. Chris Firestone Attachment 2 January 19, 2011 Page 1 of 5

ATTACHMENT 2

State-Listed Endangered and Threatened Species

Attachment 2

Threatened and Endangered Plant Species that could occur in Montgomery, Chester, and Bucks Counties

Scientific Name	Common Name	Federal Status	State Status	Counties with Recorded Location
Agalinis auriculata	Eared False-foxglove		Endangered	Montgomery, Chester, Bucks
Ammanian coccinea	Scarlet Ammannia		Endangered	Bucks
Arabis missouriensis	Missouri Rock-cress		Endangered	Montgomery
Arethusa bulbosa	Swamp-pink	-	Endangered	Chester
Aristida purpurascens	Arrow-feathered Three Awned		Threatened	Chester, Bucks
Arnica acaulis	Leopard's-bane		Endangered	Chester
Asplenium bradleyi	Bradley's Spleenwort		Threatened	Chester
Bidens bidentoides	Swamp Beggar-ticks		Threatened	Bucks
Bouteloua curtipendula	Tall Gramma		Threatened	Chester
Carex alata	Broad-winged Sedge		Threatened	Bucks
Carex bicknellii	Bicknell's Sedge		Endangered	Chester, Bucks
Carex bullata	Bull Sedge		Endangered	Chester, Bucks
Carex crinita var. brevicrinis	Short Hair Sedge		Endangered	Chester, Bucks
Carex polymorpha	Variable Sedge		Endangered	Chester
Carex prairea	Prairie Sedge		Threatened	Bucks
Carex sterilis	Sterile Sedge		Threatened	Montgomery, Bucks
Carex tetanica	A Sedge		Threatened	Chester, Bucks
Carex typhina	Cattail Sedge		Endangered	Montgomery, Chester, Bucks
Cerastium arvense var. villosissimum	Serpentine Chickweed	photos	Endangered	Chester
Chasmanthium laxum	Slender Sea-oats		Endangered	Bucks
Chrysopsis mariana	Maryland Golden-aster	-	Threatened	Chester, Bucks
Cirsium horridulum	Horrible Thistle		Endangered	Chester
Clematis viorna	Vase-vine Leather-flower		Endangered	Chester
Cyperus diandrus	Umbrella Flatsedge		Endangered	Chester, Bucks
Cyperus refractus	Reflexed Flatsedge		Endangered	Montgomery, Bucks
Cyperus retrorsus	Retrorse Flatsedge		Endangered	Bucks
Dodecatheon radicatum	Jeweled Shooting-star		Threatened	Montgomery
Echinochloa walteri	Walter's Barnyard-grass		Endangered	Bucks
Eleocharis obtuse var. peasei	Wright's Spike-rush		Endangered	Bucks
Eleocharis parvula	Little-spike Spike-rush		Endangered	Bucks
Eleocharis quadrangulata	Four-angled Spike-rush		Endangered	Bucks
Elephantopus carolinianus	Elephant's foot		Endangered	Chester
Ellisia nyctelea	Ellisia		Threatened	Montgomery,

Threatened and Endangered Plant Species that could occur in Montgomery, Chester, and Bucks Counties

Scientific Name	Common Name	Federal Status	State Status	Counties with Recorded Location
				Chester, Bucks
Epilobium strictum	Downy Willow-herb	-	Endangered	Montgomery, Bucks
Eriophorum gracile	Slender Cotton-grass		Endangered	Montgomery, Bucks
Eriophorum tenellum	Rough Cotton-grass		Endangered	Chester
Eriophorum viridicarinatum	Thin-leaved Cotton-grass		Threatened	Bucks
Euphorbia ipecacuanhae	Wild Ipecac		Endangered	Bucks
Euphorbia purpurea	Glade Spurge		Endangered	Chester
Eurybia spectabilis	Low Showy Aster		Endangered	Bucks
Euthamia tenuifolia	Grass-leaved Goldenrod		Threatened	Montgomery, Bucks
Festuca paradoxa	Cluster Fescue		Endangered	Chester
Fimbristylis annua	Annual Fimbry		Threatened	Chester
Gaylussacia dumosa	Dwarf Huckleberry		Endangered	Montgomery, Chester
Glyceria obtusa	Blunt Manna-grass		Endangered	Montgomery
Helianthemum bicknellii	Bicknell's Hoary Rockrose		Endangered	Chester, Bucks
Heteranthera multiflora	Multi-flowered Mud-plantain		Endangered	Bucks
Hypericum majus	Larger Canadian St. John's- wort	-	Threatened	Chester
llex opaca	American Holly		Threatened	Chester, Bucks
Iris prismatica	Slender Blue Iris		Endangered	Montgomery, Chester, Bucks
Iris verna	Dwarf Ins		Endangered	Bucks
Isotria medeoloides	Small-whorled Pogonia	Threatened	Endangered	Chester
Juncus dichotomus	Forked Rush	um Min	Endangered	Montgomery, Chester, Bucks
Juncus scirpoides	Scirpus-like Rush		Endangered	Montgomery, Chester, Bucks
Juncus torreyi	Torrey's Rush		Threatened	Chester
Linum intercursum	Sandplain Wild Flax		Endangered	Montgomery, Chester, Bucks
Listera australis	Southern Twayblade		Endangered	Chester
Listera cordata	Heart-leaved Twayblade		Endangered	Bucks
Lobelia kalmii	Brook Lobelia		Endangered	Montgomery
Lobelia puberula	Downy Lobelia		Endangered	Chester
Lycopodiella alopecuroides	Foxtail Clubmoss		Endangered	Bucks
Lycopodiella appressa	Southern Bog Clubmoss	-	Threatened	Bucks
Lycopus rubellus	Bugleweed		Endangered	Bucks
Lyonia mariana	Stagger-bush		Endangered	Montgomery, Chester, Bucks

Threatened and Endangered Plant Species that could occur in Montgomery, Chester, and Bucks Counties

Scientific Name	Common Name	Federal Status	State Status	Counties with Recorded Location
Magnolia tripetala	Umbrella Magnolía	_	Threatened	Chester, Bucks
Magnolia virginiana	Sweet bay magnolia		Threatened	Montgomery, Chester, Bucks
Myriophyllum farwellii	Farwell's Water-milfoil		Endangered	Bucks
Myriophyllum heterophyllum	Broad-leaved Water-milfoil		Endangered	Bucks
Nymphoides cordata	Floating-heart		Threatened	Bucks
Panicum amarum var. amarulum	Southern Sea-beach Panic- grass		Threatened	Bucks
Panicum scoparium	Velvety Panic-grass	-	Endangered	Chester, Bucks
Parnassia glauca	Carolina Grass-of-parnassus		Endangered	Bucks
Phemeranthus teretifolius	Round-leaved Fame-flower		Threatened	Chester
Phyllanthus caroliniensis	Carolina Leaf-flower	-	Endangered	Chester
Poa autumnalis	Autumn Bluegrass	-	Endangered	Chester, Bucks
Poa paludigena	Bog Bluegrass	-	Threatened	Chester
Polygala cruciata	Cross-leaved Milkwort		Endangered	Montgomery, Chester, Bucks
Polygala curtissii	Curtis's Milkwort		Endangered	Chester
Polygala incarnata	Pink Milkwort		Endangered	Chester
Polystichum braunii	Braun's Holly Fern		Endangered	Bucks
Populus balsamifera	Balsam Poplar		Endangered	Montgomery
Potamogeton pulcher	Spotted Pondweed		Endangered	Bucks
Potentilla paradoxa	Bushy Cinquefoil		Endangered	Montgomery
Prunus maritima	Beach Plum		Endangered	Montgomery, Bucks
Ptelea trifoliata	Common Hop-tree	M	Threatened	Bucks
Ptilimnium capillaceum	Mock Bishop-weed	_	Endangered	Bucks
Pycnanthemum torrei	Torrey's Mountain-mint		Endangered	Bucks
Quercus falcata	Southern Red Oak		Endangered	Montgomery, Chester, Bucks
Quercus phellos	Willow Oak	_	Endangered	Chester, Bucks
Ranunculus fascicularis	Tufted Buttercup		Endangered	Montgomery, Chester
Rhamnus lanceolata	Lance-leaved Buckthorn		Endangered	Chester
Rhexia mariana	Maryland Meadow-beauty		Endangered	Chester, Bucks
Rhynchospora capillacea	Capillary Beaked-rush		Endangered	Bucks
Sagittaria calycina var. spongiosa	Long-lobed Arrow-head		Endangered	Bucks
Scaphiopus holbrookii	Eastern Spadefoot		Endangered	Bucks
Schoenoplectus smithii	Smith's Bulrush		Endangered	Bucks
Scleria minor	Minor Nutrush		Endangered	Chester
Scleria muehlenbergii	Reticulated Nutrush		Endangered	Chester

Threatened and Endangered Plant Species that could occur in Montgomery, Chester, and Bucks Counties

Scientific Name	Common Name	Federal Status	State Status	Counties with Recorded Location
Scleria pauciflora	Few Flowered Nutrush		Threatened	Montgomery, Chester, Bucks
Sedum rosea	Roseroot Stonecrop		Endangered	Bucks
Sericocarpus linifolius	Narrow-leaved White-topped Aster		Endangered	Montgomery, Chester, Bucks
Sisyrinchium atlanticum	Eastern Blue-eyed Grass		Endangered	Chester, Bucks
Sparganium androcladum	Branching Bur-reed		Endangered	Bucks
Spiranthes romanzoffiana	Hooded Ladies'-tresses		Endangered	Montgomery
Spiranthes vernalis	Spring Ladies'-tresses	_	Endangered	Montgomery, Chester
Sporobolus heterolepis	Prairie Dropseed		Endangered	Chester
Symphyotrichum depauperatum	Serpentine Aster		Threatened	Chester
Symphyotrichum novi-belgii	New York Aster		Threatened	Montgomery, Bucks
Triphora trianthophora	Nodding Pogonia		Endangered	Montgomery, Chester, Bucks
Triplasis purpurea	Purple Sandgrass	-	Endangered	Bucks
Trollius laxus	Spreading Globeflower		Endangered	Bucks
Utricularia intermedia	Flat-leaved Bladderwort		Threatened	Bucks
Utricularia radiata	Small Swollen Bladderwort		Endangered	Bucks
Vernonia glauca	Tawny Ironweed		Endangered	Montgomery, Chester
Viburnum nudum	Possum-haw		Endangered	Montgomery, Chester, Bucks
Viola brittoniana	Coast Violet		Endangered	Bucks

Note: -- in the Federal Status column signifies that the species is not a federally-listed species.

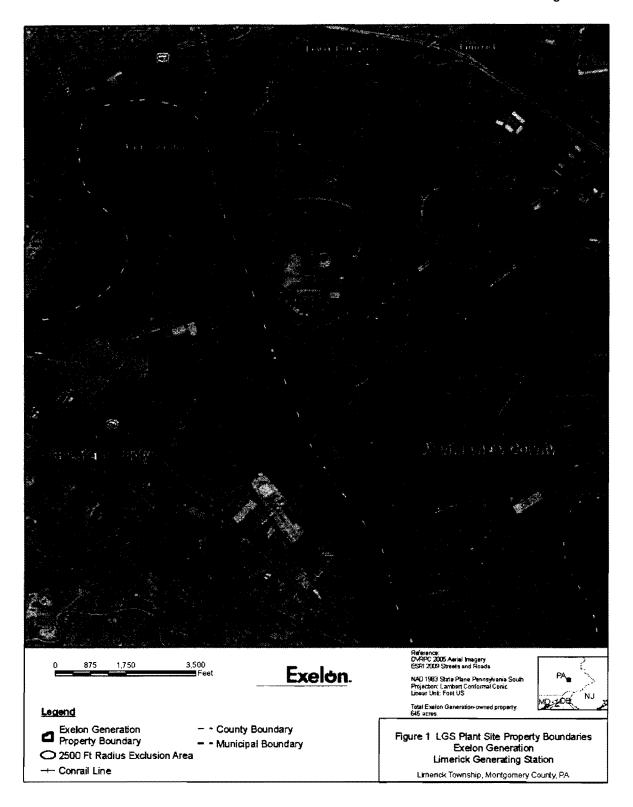
Ms. Chris Firestone Attachment 3 January 19, 2011 Page 1 of 10

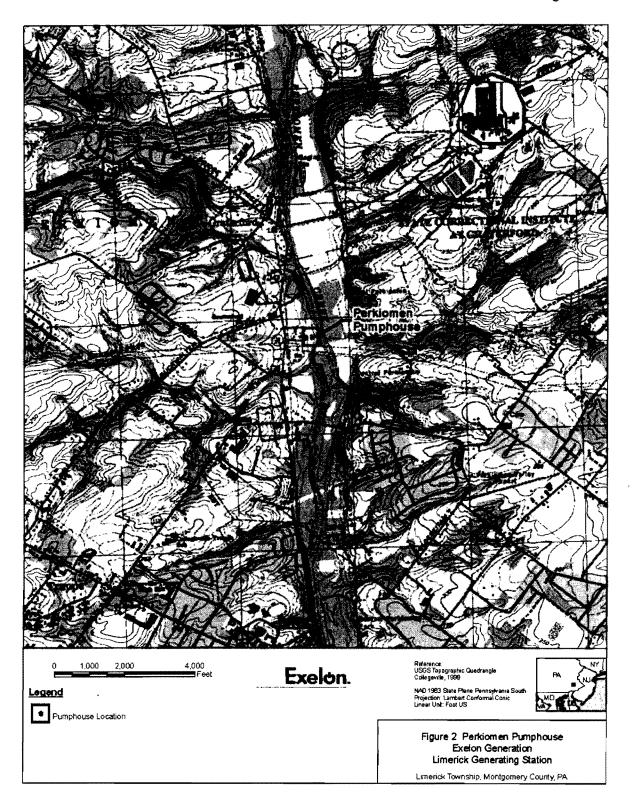
ATTACHMENT 3

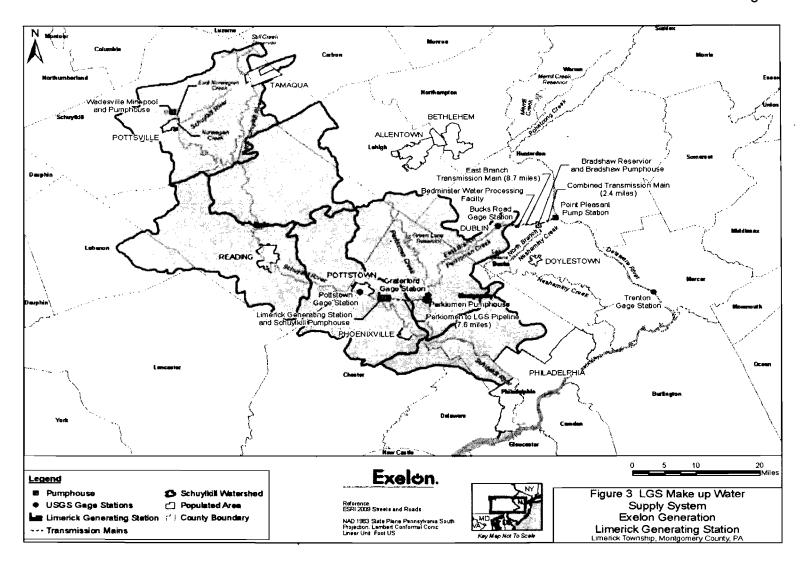
Figures Depicting LGS Project Features

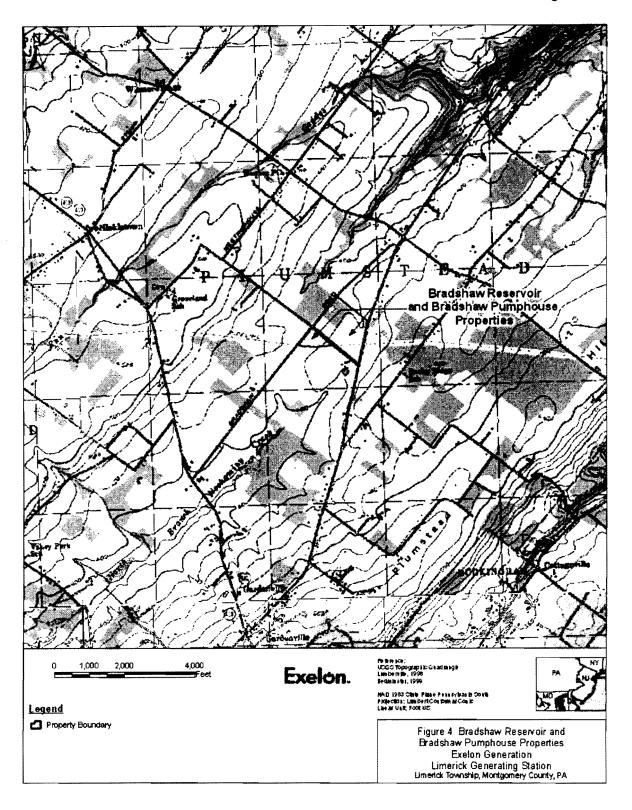
Figure 1	LGS Plant Site Property Boundaries		
Figure 2	Perkiomen Pumphouse		
Figure 3	LGS Makeup Water Supply System		
Figure 4	Bradshaw Reservoir and Bradshaw Pumphouse Properties		
Figure 5	Bedminster Water Processing Facility Property		
Figure 6	Limerick to Cromby 230 kV Transmission Line Route		
Figure 7	Cromby to North Wales 230 kV Transmission Line		
Figure 8	Cromby to Plymouth Meeting 230 kV Transmission Line Route		

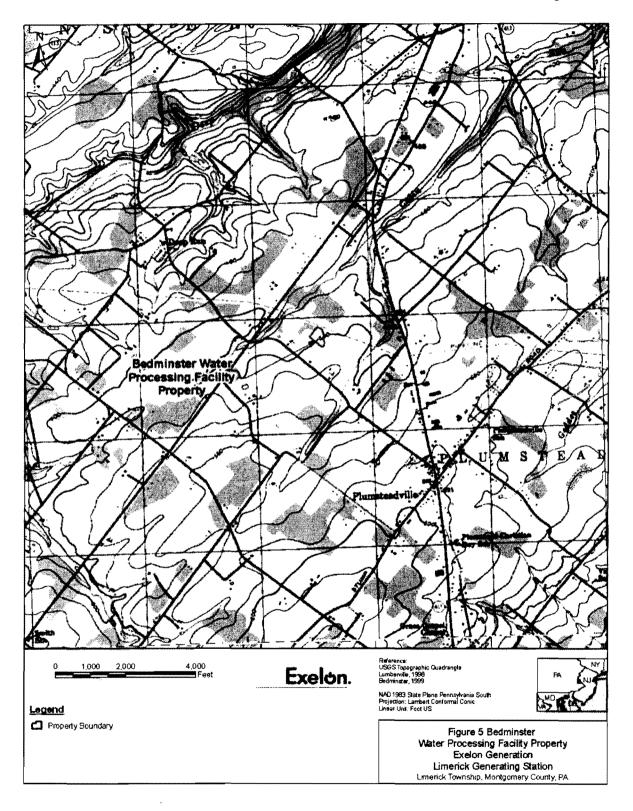
Figure 9 Limerick to Whitpain 500 kV Transmission Line Route

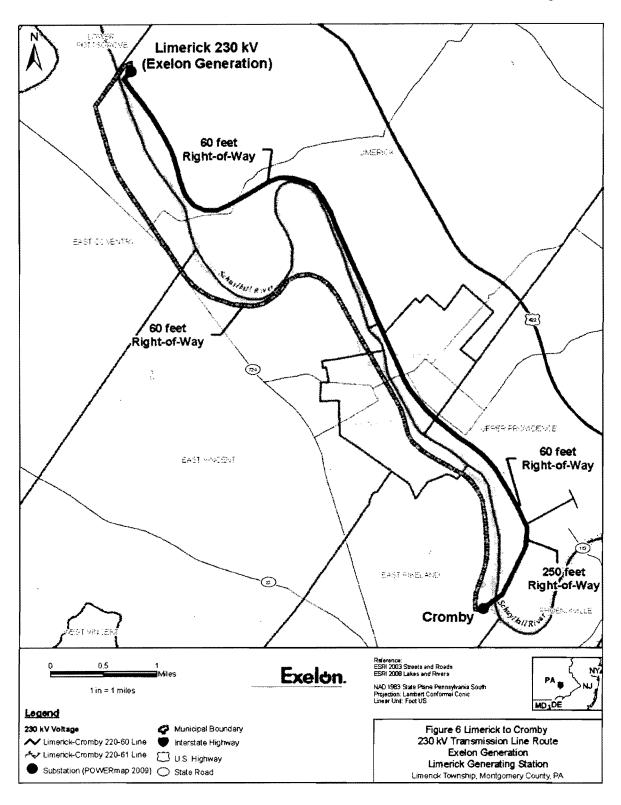


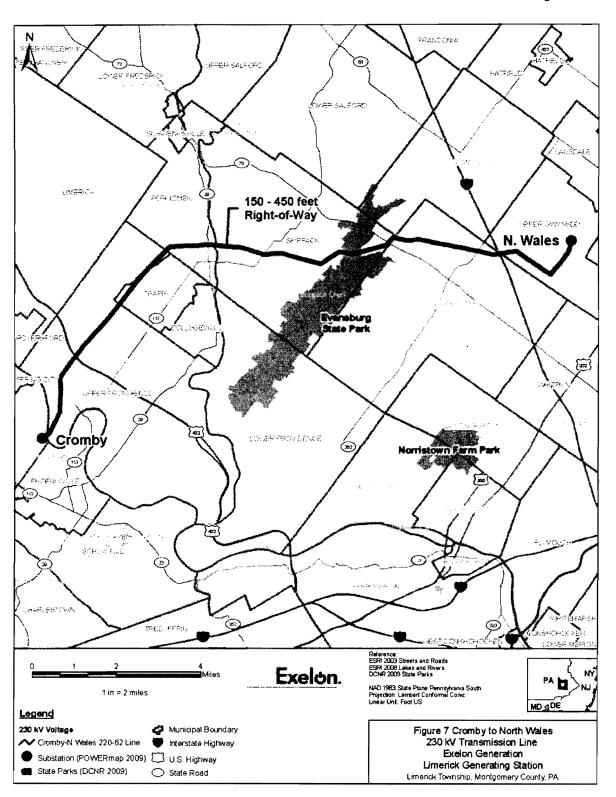


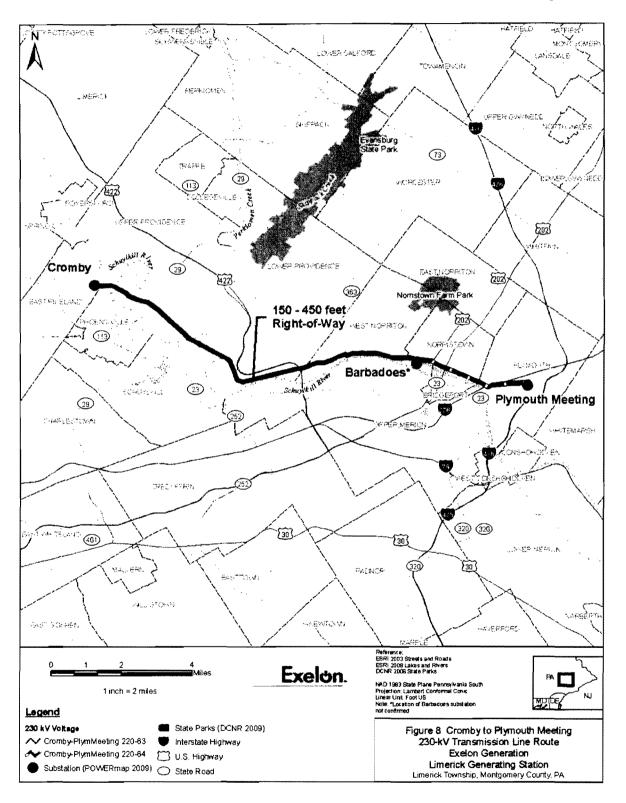


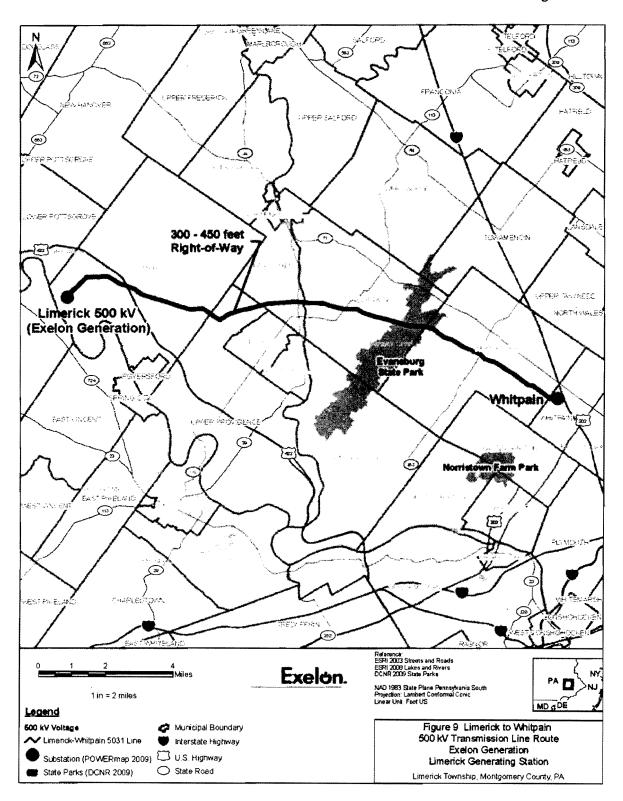














BUREAU OF FORESTRY

March 9, 2011

Michael P. Gallagher, PE Exelon Nuclear 200 Exelon Way KSA/2-E Kennett Square, PA 19348 PNDI Number: 21136

3/h./

Re:

Renewal of Operating Licenses for Limerick Generating Station, Units 1 and 2

Chester, Montgomery, & Bucks Counties

Dear Mr. Gallagher,

Thank you for your submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number 21136 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, since the renewal does not involve new construction, refurbishment, ground disturbance, changes to operations or existing land use conditions, DCNR has determined that no impact is likely to occur to species of special concern under our jurisdiction as a result of this project.

For your information, we have included details on the species of special concern which are known near the rights of way of the LGS transmission corridors. If plans change to include earth disturbance in these locations, please coordinate with us further.

Limerick to Cromby 230kV Transmission Line Route

Rotala ramosior (Tooth-cup, PA Rare): habitat is described in Plants of PA, by Rhoads and Block as wet, sandy shores and other swampy open ground; flowers July-Sept. Tooth-cup is known in a wet wooded stretch along the west side of the Schuylkill River.

Cyperus schweinitzii (Schweintiz's flatsedge, PA Rare): habitat includes dry or moist sand flats and dunes; flowering and fruiting time is mid-summer to early fall. Schweinitz's flatsedge was found in association with Tooth-cup in a wet wooded area along the west side of the Schuylkill River.

Arabis missouriensis (Missouri rock-cress, PA Endangered): habitat includes dry slopes; flowers Aprilearly June. Missouri rock-cress was found nearby in a dry forested slope with scattered outcrops of Brunswick red shale. If work is planned (especially ROW widening) in the future for the eastern Limerick—Cromby 220-60 Line, please coordinate with us further.

Arabis patens (Spreading rock-cress, Currently Unlisted, Proposed PA Threatened): habitat is moist, rocky woods; flowers April-July. Spreading rock cress was found nearby in a shaded NW-facing rock face.

Cromby to North Wales 230kV Transmission Line Route

Enclosure 7

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PNDI Number: 21136

Arabis patens (Spreading rock-cress, Currently Unlisted, Proposed PA Threatened): habitat is moist, rocky woods; flowers April-July. Spreading rock cress was found nearby in a shaded NW-facing rock face.

- Iris prismatica (Slender Blue Iris, PA Endangered): habitat is moist meadows and sandy or gravelly shores; flowering time is late May-June. Slender blue iris was found nearby in gently sloping land, open with scattered red maples in a mossy floodplain of the Perkiomen Creek.
- Ranunculus fascicularis (Tufted buttercup, PA Endangered): habitat includes dry, think woods and exposed calcareious slopes and edges; flowers April-May. Tufted buttercup was found nearby in a ridgetop glade near trails in a state park.

Cromby to Plymouth Meeting 230kV Transmission Line Route

- Arabis patens (Spreading rock-cress, Currently Unlisted, Proposed PA Threatened): habitat is moist, rocky woods; flowers April-July. Spreading rock cress was found nearby in a shaded NW-facing rock face.
- Andropogon gyrans (Elliott's beardgrass, Currently unlisted, Proposed PA Rare): habitat is dry or moist fields or open woods; flowering time is September to October. Elliott's beardgrass was found nearby in an old field.
- Cuscuta campestris (Dodder, Currently Unlisted, Proposed PA Threatened): habitat includes thickets and waste ground, parasitic on wild and cultivated hosts; flowers June-September, fruits July-October. This dodder species was previously found in an old impounding basin, near the Schuylkill River.
- Rotala ramosior (Tooth-cup, PA Rare): habitat includes wet, sandy shores and other swampy open ground; flowers July-Sept. This population of Tooth-cup was found on an exposed mud flat and sandy-cobbly shores of seasonally flooded shallow basins.

Limerick to Whitpain Meeting 500kV Transmission Line Route

- Ranunculus fascicularis (Tufted buttercup, PA Endangered): habitat includes dry, think woods and exposed calcareious slopes and edges; flowers April-May. Tufted buttercup was found nearby in a ridgetop glade near trails in a state park.
- Iris prismatica (Slender Blue Iris, PA Endangered): habitat is moist meadows and sandy or gravelly shores; flowering time is late May-June. Slender blue iris was found nearby in gently sloping land, open with scattered red maples in a mossy floodplain of the Perkiomen Creek.

This response represents the most up-to-date summary of the PNDI data files and is <u>valid for one (1) year</u> from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map).

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,

Rebuca H. Bour

Rebecca H. Bowen, Environmental Review Manager FOR Chris Firestone, Wild Plant Program Mgr.

Ph: 717-772-0258 ~ <u>c-rbowen@state.pa.us</u>

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not current, please provide any applicable updates. Both the January 2011 letter from Exelon and the March 2011 letter from The Pennsylvania Department of Conservation and Natural Resources are enclosed for your reference. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act.

The NRC staff plans to hold two public license renewal overview and environmental scoping meetings on September 22, 2011, in the area of Limerick. The first session will be held in the afternoon and an identical session will be held later that evening. Both sessions will be held at the Sunnybrook Ballroom, 50 North Sunnybrook Road, Pottstown, PA 19464. The afternoon session will be from 2:00 p.m. until 4:00 p.m. and the evening session will be from 7:00 p.m. until 9:00 p.m. In addition, the NRC plans to hold a one hour Open House prior to each meeting to answer public questions. You and your staff are invited to attend the public meetings and Open House. Your office will receive a copy of the draft SEIS along with a request for comments. The anticipated publication date for the draft SEIS is August 2012.

The Limerick license renewal application is available on the internet at http://www.nrc.gov/reactors/operating/licensing/renewal/applications/limerick.html. If you have any questions or require additional information, please contact Mrs. Lisa Regner, License Renewal Project Manager, by phone at 301-415-1906 or by e-mail at Lisa.Regner@nrc.gov.

Sincerely,
/RA Lisa Regner for/
David J. Wrona, Chief
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures: As stated

cc w/encls: Listserv

DISTRIBUTION: See next page

ADAMS Accession Nos: Package: ML11256A185 Letter: ML11230B346 Encls 1 – 5: ML11230B335 Encls 6 – 7: ML11256A192

OFFICE	LA:RPOB:DLR	PM:RPB2:DLR	BC:RPB2:DLR
NAME	lKing	LRegner(PCooper for)	DWrona (LRegner for)
DATE	9/13/11	09/16/11	09/16/11

OFFICIAL RECORD COPY

Letter to C. Firestone from D. Wrona dated September 16, 2011

SUBJECT:

REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER EVALUATION FOR THE LIMERICK GENERATING STATION, UNITS 1 AND 2,

LICENSE RENEWAL APPLICATION REVIEW (PNDI NUMBER: 21136)

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